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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/330,743	06/11/1999	BRIAN BUCHANAN	RA998-040	9782

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EXAMINER

EMDADI, KAMRAN

ART UNIT	PAPER NUMBER
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2664

DATE MAILED: 09/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/330,743

Applicant(s)

BUCHANAN ET AL.

Examiner

Kamran Emdadi

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 15.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

09/330743

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371 (c) of this title before the invention thereof by the applicant for patent.

2. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).
3. Claims 1, 3, 4 and 5, are rejected under 35 U.S.C. 102(e) as being anticipated by Roberts (US Patent No. 6313932). Roberts teaches: - Regarding claim 1, a receiving and transmitting subsystem (figure 5), more than one clock recovery circuits 54, and 55, with a method to derive signals for channels C2 to CN-1 (Col 9, lines 20-24) where the objective is to recover a retimed data signal in the form of a parallel data stream (Col 9, lines 25-28). and an alignment processor 40, which receives and combines signals to produce a binary set of values (Col 8, lines 40-45).

- Regarding claim 3 and 4 the use of a first and second module are illustrated by the Optical Transmission System of (figure 1) where the receiving and transmitting are shown at the various elements within the figure representing modules.
- Regarding claim 5, the multiplexing system where parallel data is admitted to the multiplexer (Col 5, lines 7-14), an alignment method for the multiplexing system that receives parallel data (Col 3, lines 65-67) and (Col 4, lines 1-4), and a controller circuit 15 that performs control signaling (Col 6, lines 58-63).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U. S. C. 103 (a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2, 7, 8, 11 and 12, are rejected under 35 U.S.C. 103(x) as being unpatentable over Roberts (US Patent No. 6313932) in view of Pocrass (US Patent No. 5428806).
 - Regarding claims 2, 7 and 8, Roberts teaches a system with recovery circuits and alignment correction with serial and parallel bit streams but fails to teach of the number of parallel bit streams equal to 4 or the use of bit-latches that are used in a sequence of 3. Pocrass teaches a system of transmitting and receiving with 3 bit latches (figure 613) and an arrangement with 4 data lines (Col 11, lines 13-16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have included the use of 3 bit latches and four

data streams to produce a system that is structurally sound to handle the necessary speed and processing of its processing modules and related interconnectivity.

- Regarding claims 11 and 12, Roberts teaches all of the above embodiments of the invention except: the use of a memory storage device coupled to the data of the serial type formatted into the parallel type in the form of bit words, where one of the words or bit patterns could be 0 1 1 0 1 . Procrass teaches the use of memory to store data that had undergone a serial to parallel conversion for bit streams of data word types (Col 9, lines 45-50), where the bit word pattern 0101 is from a list of binary representations for the fourteen slots in the hardware device respectively one being 0101, (Col 19, 34-55). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the use of a bit pattern to represent the number five as a value associated with an element of the references as five is a small enough value to be included in a table of values counting up to fourteen.

6. Claims 6, 9 and 10, are rejected under 35 U. S. C. 103 (a) as being unpatentable over Roberts (US Patent No. 6313932) in view of Ajanovic (US Patent No. 6298426).

- Regarding claims 6, 9, and 10 Roberts teaches a system with recovery circuits and alignment correction with serial and parallel bit streams but fails to teach of the a plurality of multiplexers and the coupling of a memory device to the multiplexers for the input of parallel data and a processor. Ajanovic teaches of a multiplexing system with various memory types to be controlled by a central controller including: multiplexers coupled to memory (Col 4, lines 29-34) and a plurality of

mutlplexers (figure 4B), and processors 100 and 101 for program execution (figure 1). Therefore it would have been obvious to one skilled in the art at the time the invention was made to have had a plurality of multiplexers coupled to memory devices in order to ensure the interoperability of multiplexing platform configurations for data stored in memory devices for increased flexibility.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - Le Garrec (US Patent No. 5970071) Device for data insertion in a digital network.
 - Rakib (US Patent No. 6356555) Digital data transmission device.
 - Little (US Patent No. 4268722) Radiotelephone system with recovery circuits.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kainran Emdadi whose telephone number is (703) 305-4899. The examiner can normally be reached between the hours of 9am and 5pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached at (703) 305-4366. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9314 for regular communications. Any inquiry of a general nature or relating to

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the status of this application or proceeding should be directed to the receptionist
whose telephone number is (703) 305-3900.

Kamran Emdadi

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Please Note Correction has
been made.

Kamran Emdadi

KE 9/4/2002

08/22/02


RICKY NGO
PRIMARY EXAMINER

Attachment for PTO-948 (Rev. 03/01, or earlier)
6/18/01

The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. Correction of Informalities -- 37 CFR 1.85

New corrected drawings must be filed with the changes **incorporated** therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the Notice of Allowability. Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

Timing of Corrections

The applicant is required to submit the drawing corrections within the time period set in the attached Office communication. See 37 CFR 1.85(a).

Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.